higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

PLANT AND EQUIPMENT
NQF LEVEL 2

(12030052)

20 November 2024 (Y-paper)
13:00–16:00

This question paper consists of 5 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
PLANT AND EQUIPMENT
NQF LEVEL 2
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Use only a black or blue pen.
5. Write neatly and legibly.

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QUESTION 1: INTRODUCTION TO PLANT AND EQUIPMENT

1.1 Give THREE reasons why it is important to care for the equipment in the construction industry. (3)

1.2 Name TWO main periods in the history of the early technology regarding the role of tools and machines. (2)

[5]

QUESTION 2: LEGISLATION AND SAFETY REGULATIONS

2.1 Good housekeeping at working sites is a legal requirement that must be followed daily in order for the workplace to be a safe and productive environment.

State FIVE consequences of poor housekeeping. (5)

2.2 State TWO important aspects that the Occupational Health and Safety Act No. 85 of 1993 covers with regard to construction workers. (2 × 2) (4)

2.3 Name FIVE headings that should be included when writing an investigation report. (5)

2.4 Write out the abbreviation, SEMS, in full. (1)

[15]

QUESTION 3: FIRST AID

3.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (3.1.1–3.1.5) in the ANSWER BOOK.

3.1.1 Hazards may cause loss of life, injury and environmental damage.

3.1.2 It is important that a person who was injured in an accident should stay calm.

3.1.3 Artificial respiration is a technique of providing blood for a person who is not breathing.

3.1.4 When a person is in shock, the condition and colour of the skin changes.

3.1.5 A closed fracture is where the skin over the fracture is broken.

(5 × 1) (5)

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3.2 State the steps to follow when a person with no suspected head or spinal injuries, have to be turned. (5)

3.3 Name FIVE emergency services that will assist when an accident occurs. (5)
[15]

QUESTION 4: HAND TOOLS

4.1 Define the following terms as found in Plant and Equipment Level 2:

4.1.1 Trade

4.1.2 Mortar

4.1.3 Polygon

(3 × 2) (6)

4.2 State TWO ways in which the following tools should be maintained and cared for:

4.2.1 Spirit level

4.2.2 Vernier

4.2.3 Gauging trowel

4.2.4 Industrial wheelbarrow

4.2.5 Pipe vice

(5 × 2) (10)

4.3 Name THREE types of trowels used by builders. (3)

4.4 State 10 steps in the process of sharpening a blade or a plane. (10)

4.5 Write out the abbreviation, HSS in full. (1)
[30]

QUESTION 5: LADDERS

5.1 Briefly describe the correct procedure to set up a straight or extension ladder. (3)

5.2 State FIVE consequences of over-reaching when using a ladder. (5)

5.3 Define the term, *builder's hoist*. (2)
[10]

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QUESTION 6: BUILDERS' TRESTLES, ACCESS SCAFFOLDING AND MOBILE TOWERS

6.1 The scaffolding team leader must be trained to minimise the most common causes of death and injuries in the construction industry, as well as to obtain other skills and knowledge.

Name EIGHT training modules the scaffolding team leader can complete. (8)

6.2 Name SIX scaffolding components. (6)

6.3 Explain how to inspect a builder's trestle working platform. (3)

6.4 State FOUR guidelines to consider when moving a mobile tower according to SANS requirements. (4)

6.5 Define the following terms as used in Plant and Equipment Level 2:

6.5.1 Mobile tower

6.5.2 Handover certificate

(2 × 2) (4)
[25]

TOTAL: 100

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